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ABSTRACT

A user contacts a reference librarian when he needs assistance to solve a methodological problem in getting information from the scholarly record. The reference librarian then takes on the user's problem. There are two responses the reference librarian can make: (1) teach the user how to access the scholarly record for his immediate purpose, or (2) provide the user with an "answer" to his problem. The latter only becomes justifiable if the reference librarian can respond in the user's problem-solving time frame. From this perspective then the reference librarian always has the obligation to explain the organization of the library and/or the organization of the literature. An "answer" is only provided if it is cost beneficial as judged from the user's time for both the user and the reference librarian. Thus in programming reference service the number of correct (or incorrect) answers is unimportant because the reference service has the obligation to reveal an organization, not an answer. Again from this perspective it is possible to plan reference service on a consistent basis throughout a library system; that is, it is not the complexity of the organization of the literature on which a reference service is based, but on the methodology for using the organization. The user has a defined responsibility to learn for himself if the librarian cannot respond within the user's problem-solving time frame. A protocol is suggested for estimating work loads utilizing the above perspective of reference service. (Author/NH)

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Programming for Reference Service

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SUMMARY

Librarians have always been available to interpret the organization of a library's collections, but reference service became identified as a "specialty" service only in the 19th century. The major reason large library organizations were forced to form reference departments was the growth of the scholarly record. Especial storage arrangements had to be explained to the users of libraries. The bibliographic control of the growing scholarly record required complex sets of rules and techniques which could not be learned incidentally. In spite of American librarianship's effort to standardize classification, subject indexing, and rules of bibliographic identity, specialized librarians were needed to teach library users how to gain access to the scholarly record; the library was no longer a self-service organization.

Organizationally resource-research libraries have created two general administrative reference service arrangements--the "subject" department or the "subject" division. Although administratively the identity of a reference unit was made clear through this means, what the responsibilities of the reference staff should be has remained undefined in any quantitative way for programmed or formula budgeting, or for cost benefit accounting. The difficulty arises over the inability to place reference service work into a pattern. Academic research libraries have a clientele with varying levels of sophistication. There may be little controversy over the requirement that a reference librarian must teach users the organization of the scholarly record, but when and for whom does a reference librarian provide "answers" to users' question rather teach how to locate the answer? Perhaps because of this situation efforts to measure the quality of reference service have been less than satisfactory. It would appear that the reason for the need for reference service, to assist users, is too complex to reduce to any general statement of responsibility and procedure. The reference librarian works for or with a user on problems brought up by the user. A user's needs being unpredictable, the requirements of reference service are undefinable.

In an academic environment both students and faculty must work according to a schedule. When students or faculty are studying or learning through the use of library materials, they must work within this schedule. It is postulated that students and faculty, in general, work only 10-15 minutes on a problem; if they have not solved it, they reassess their problem-solving method and try another approach. Again, in general, academic library users spend only two to three hours in any one day in a library. If they have not completed their study in that length of time, they return the next day, or more than likely, the next period in their weekly schedule in which they again have two to three hours free.

A user contacts a reference librarian when he needs assistance to solve a methodological problem in getting information from the scholarly record. The reference librarian then takes on the user's problem. There are two responses the reference librarian can make: (i) teach the user how to access the scholarly record for his immediate purpose, or

(ii) provide the user with an "answer" to his problem. The latter only becomes justifiable if the reference librarian can respond in the user's problem-solving time frame.

From this perspective then the reference librarian always has the obligation to explain the organization of the library and/or the organization of the literature. An "answer" is only provided if it is cost beneficial as judged from the user's time for both the user and the reference librarian. Thus in programming reference service the number of correct (or incorrect) answers is unimportant because the reference service has the obligation to reveal an organization, not an answer. Again from this perspective it is possible to plan reference service on a consistent basis throughout a library system; that is, it is not the complexity of the organization of the literature on which a reference service is based, but on the methodology for using the organization. The user has a defined responsibility to learn for himself if the librarian cannot respond within the user's problem-solving time frame.

A protocol is suggested for estimating work loads utilizing the above perspective of reference service.

INTRODUCTION

All the birds of the air came to the magpie and asked her to teach them how to build nests. For the magpie is the cleverest bird of all at building nests. So she put all the birds round her and began to show them how to do it. First of all she took some mud and made a sort of round cake with it.

"Oh, that's how it's done!" said the thrush, and away it flew; and so that's how thrushes build their nests.

Then the magpie put another layer of mud over the twigs.

"Oh, that's quite obvious'" said the wise owl, and away it flew; and owls have never made better nests since.

After this the magpie took some twigs and twined them round the outside.

"The very thing!" said the sparrow, and off he went; so sparrows make rather slovenly nests to this day.

Well, then Madge magpie took some feathers and stuff, and lined the nest very comfortably with it.

"That suits me!" cried the starling, and off it flew; and very comfortable nests have starlings.

So it went on, every bird taking away some knowledge of how to build nests, but none of them waiting to the end.

Meanwhile Madge magpie went on working and working without looking up, till the only bird that remained was the turtle-dove, and that hadn't paid any attention all along, but only kept on saying its silly cry: "Take two, Taffy, take two-o-o-o!"

At last the magpie heard this just as she was putting a twig across, so she said: "One's enough."

But the turtle-dove kept on saying: "Take two, Taffy, take two-o-o-o!"

Then the magpie got angry and said: "One's enough, I tell you'."

Still the turtle-dove cried: "Take two, Taffy, take two-o-o-o!"

At last, and at last, the magpie looked up and saw nobody near her but the silly turtle-dove, and then she got rarely angry and flew away and refused to tell the birds how to build nests again..

And that is why different birds build their nests differently.

The Magpie's Nest
--Joseph Jacobs

Reference Departments did not just happen--library organizations had to argue for the existence for such specialization. (1) In spite of, or perhaps because of, the effort that was expended to establish reference departments into the administrative structure, reference work is the least understood, functionally and operationally, of any part of library service. That is to say

1) The art and technology of reference work is the most difficult part of librarianship to teach.

2) Although reference librarians often must work under pressure, their functions, and the bureaucratic rules which provide them with identity, are ill-defined because: (i) priorities for reference service are seldom made explicit; (ii) institutional policies which govern the kind and quality of service provided may fluctuate widely even over short periods of time; (iii) dependability and accuracy of reference service have not been satisfactorily measured. (2)

3) The variability and unpredictability of the demands on reference librarians prevents the organization of reference services into work modules or into administrative units for fiscal and other program planning.

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(1) Rothstein, S. Reference service. In, Rowland, A.R. ed., Reference Services. Contributions to Library Literature. No. 5, Shoe String Press, 1964, pp. 35-46.

(2) The accountability of librarians in technical or other public services can be made explicit. Consistent and accidental "errors" can be identified and traced to individual actions or institutional policies. Reference librarians are all but immune to malpractice. The recipients of reference service are not organized as a group to judge or to assess the quality of service they receive. Peer evaluations of reference librarians are perhaps no more subjective than other specialized aspects of librarianship, but are more difficult to make because of the lack of institutional goals and policies on which to base standards of performance.

The criteria for judging the adequacy of resource-research libraries are changing. The assumption that the larger the volume count the more valuable the library may still be valid, but the quality and value of our resource libraries are going to be judged by the ability of reference librarians

1) to reveal the organization of the scholarly record,

2) to reveal the organization of libraries using the logogriphs of library technology, and

3) to develop dependable methods for dissemination of the scholarly record not only to individuals who come to the resource libraries, but also to those who cannot get to the libraries.

How are resource-research libraries going to assist individuals in gaining access to collections? Assuming responsibility can be defined in at least general terms, how do individual reference librarians implement this responsibility and how can their accountability be measured? If, as intimated, resource-research libraries must change their values and priorities, how is this to be accomplished? When we wish to examine means for change, the past must be dealt with. First, changes are from something. Unless we understand from what we are changing, we cannot tell whether our actions are producing anything. Second, to attempt change (or prevent change) without a perspective of the past may result only in doing what was tried previously and found wanting.

DEVELOPMENT OF LIBRARIES AND TECHNOLOGY FOR REFERENCE SERVICE.

The foremost "historians" of reference work are Kaplan and Rothstein. Kaplan views reference work arising in the late 19th century from the growth in libraries and the development of new technologies. (3) Rothstein does not deny that complexity was a factor, but believes that the introduction of research into universities, which made scholarship a profession rather than an avocation, forced academic libraries to take on a new role.

> The introduction of reference service in American research libraries was due in the first instance to the fact that in American research libraries developed as institutions serving general readers as well as scholars. When the transformation of scholarship changed American colleges into universities, the change was one of addition, not displacement--the newer function of research being merely superimposed on the older function of instruction. The libraries which served these universities took on the same dual character. For the professional scholars they rapidly acquired large collections

(3) Kaplan, L. The growth of reference service in the United States from 1876 to 1893. ACRL Monograph,,No. 2. American Library Association, Feb. 1952.

> and built up an intricate bibliographic apparatus. But they also continued to service inexperienced students, whose needs never ceased to represent a major claim on the librarian's attention. (4)

Libraries were organized to serve multiple functions. Public and academic libraries have never been just storehouses of separate books. Libraries through their organization have the objective of making the entire scholarly record, as Butler says, into a single gigantic superbook through shelf arrangements, special collections, catalogs, subject indexes, and bibliographies. (5). However, there were several factors which caused large libraries to develop their individual reference services. Growth was important but how this growth was controlled spatially and how new standard bibliographic and shelving techniques, e.g., classification, subject indexing were applied influenced the kind of reference service provided.

Growth.

No library begins with many books and journals; there is always a "first" book to be listed for ownership. So long as a library survives there is never any last book--additions must be made continually to collections. Libraries in their beginnings when the collections are small may be operated by one person or even by a person as a part-time occupation. There are thousands of such libraries in the U.S. today, in hospitals, public libraries in villages and small towns, in governmental and industrial agencies. (6)

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(4) Rothstein, S. The development of reference services.... ACRL Monograph No. 14. American Library Assoc., June 1955, p.100.

(5) Butler, P. Survey of the reference field. In, Butler, P. ed. The reference functions of the library. University of Chicago Press. 1943, pp. 1-15.

(6) A distinction is useful at this point: a library as used in this paper must have as one of its functions the collecting and preserving (at least for a stated time) of a part of the scholarly record. An information center may exist with a very large staff whose function it is to locate information, but have no library connected with it.

Kaplan noted that libraries in the U.S. began to reach a size in the 1880's that made their administration too complicated to be one-man affairs. (7) What we now consider as "reference duties" began to be handed to assistants of the chief librarian. Kaplan conjectures that this was not planned or designed, but whichever assistant was available responded to the user's request for assistance. This laudable effort to be helpful produced obvious difficulties. A library assistant who undertook reference service did not get his routine work done. On the other hand assistants specializing in reference service were better able to interpret the library simply because of their concentration.

Reference service did not arrive on the library scene because staff were conveniently available to answer questions. Reference librarians became identified as specialized because collections grew to a size that only those who worked with and learned the organization of the collection could locate items that the library owned. Early reference service was devoted almost entirely to giving assistance to library users to assess the resources of a particular library--a recognition that a collection could not service itself. (8) It was only later that the concept developed that reference librarians should aid users in solving their information problems. (9)

Two things should be noted as the "concept" of reference service evolved. First, new techniques were developed to assist the user in helping himself in a library; but cataloging techniques, systems of classification, and the development of bibliographic instruments in themselves became so complex that users needed assistance to interpret the function of the aids that presumably were designed to alleviate the need for reference service. (This will be discussed further.)

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(7) Kaplan, op. cit.

(8) Kroeger, A.B. Guide to the study and use of reference books... Houghton, Mifflin Co. 2nd ed. 1908, p. ix.

(9) cf. Bishop, W. W. The theory of reference work. Bulletin of the American Library Association 9:134-139 July 1915.

Second, as collections grew in size and scope, reference librarians could no longer interpret the entire library and the need for subject specialization became evident. Administratively specialization became identified through (i) the formation of subject divisions in the large public libraries and (ii) the creation of departmental libraries in universities. (10) Not only did this effort to provide assistance to users produce changes in the administration and the physical organization of research libraries, but it also caused the creation of a library within a library, the reference collection.

Divisional and departmental reference service.

It is doubtful that either administrative system of reference can be found in a large library in the simplified form suggested here. Library organizations are empirically determined because they relate to the environment in which they function. Different growth patterns of research libraries resulted in different attitudes about reference services.

When a library grew to a size that a librarian could no longer interpret the entire library, specialized librarians became a necessity. When the work of a group of librarians became so specialized that they received an identity not only through the kind of service they provided, but by the materials they collected to support their work, they became identified as a special division. By World War I many of the large municipal libraries--Cincinnati, Detroit, Los Angeles, for example--had divided their reference service functions into divisions. (11) Not only were special reference collections formed, but the source collections were physically separated. What is significant in this formation of specialization is that even though the library collections were separated for presumed convenience for reference service, in general, the divisions were still housed physically in one building. Although divisions might be created by default in that the creation of a sociology division forced the formation of a religion and philosophy division, or by administrative fiat, the divisions became defined whenever a group of users needing specialized services was identified. The process of forming subject divisions was by accretion, often with the main organization for technical services and many public services remaining undisturbed.

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(10) Large libraries had special departments that were created for practical reasons to handle groups of material whose format, such as maps, music, pictures, etc., required special handling, or where language required a specialized staff to deal with the materials. This kind of departmentalization required its own kind of reference service, but the development of subject divisions and departments came about to improve the access to library collections, not just as a convenience for storing.

(11) Rothstein, ACR Monograph No. 14, op. cit., pp. 48-51.

University libraries developed in a different manner from the public research libraries. The university grew by adding new schools and departments. The scholars who were brought in to establish these educational-research units were expected to have their own libraries. Hadley, for example, quotes a professor at the turn of the century.

> I conceive that the chief educational use of a university library is to lend an occasional book to a professor who does not happen to have the book in his own library. (12)

In other words, the central university library was a mere storehouse. The "real" libraries were owned by professors or were supported by the university departments. Rothstein remarks that "by 1905 nearly all but the smallest and the most recently established universities could show a network of departmental libraries". (13)

Though Wayne State University's Library System did not evolve in this manner, departmentalization is nevertheless apparent. The separation of the Library System's collections into "divisions" was more along University departmental lines rather than the public library division arrangement. Even today, the Science Library keeps its serial collections (and some of its book collections) separated into "departmental" units to match curricular departments.

It would appear that universities which developed their "library system" through the formation of departmental collections would have a natural base from which to supply specialized reference services. Unfortunately, this is not true. Departmental libraries were formed and defined by a particular scholarly unit; they were, and continue to be, viewed as a private facility for the university department. Even if the departmental library comes under a central administrative control, the distinctiveness of the departmental collection remains as tangible evidence of the extent of the department's scholarship and of the department's importance in the university hierarchy. (14) More detrimental to the development of specialized reference service in a departmentalized library system is its size. The fiscal constraints require that a small library have a small staff. Even today universities with departmental libraries that have reached a size of over 50,000 volumes are still often only one-librarian operations. No matter how competent this librarian may be in the subject field of his departmental unit, the stark realities of administering the details to keep the departmental library in a semblance of order does not allow him the time to provide dependable assistance to users. Departmental libraries, to give quality reference service, must grow to a size to allow a growth in staff to permit such specialization.

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(12) Hadley, A.T. The library in the university. Public Libraries 14:115-117, April 1909.

(13) Rothstein, ACRL Monograph No. 14. op. cit. p. 51.

(14) cf. Barton, M.W. Administrative problems in reference work. In, Butler, P., The reference functions... op. cit. pp. 218-248.

Beginning about 1900 a new kind of library began to be created, the "special library", to cater to the specialized needs of different sections of the community. (15) These special libraries, though funded and organized as independent units, never pretended to be complete in the sense that they could supply all documents for their clientele, but concentrated on extending and expanding the quality and kind of reference service. (16)

World War II spawned a new kind of institutionalized reference service, the "information center". Although an information center may be administratively part of a library, it has a distinct function. Rees points out that libraries are separate units outside the immediate environment of users and librarians act as mediators and purveyors, and relate to users inferentially and vicariously. The information specialists who work in information centers are part of the users' environment. (17) The most highly institutionalized information centers are the "think tanks" where teams of scientists and scholars work together to solve problems. (18) Information is processed and synthesized into different arrangements for particular purposes. It should be noted that most of the think tanks of the nation are located near the major academic research institutions (Boston, Berkley, Stanford) or near large research libraries (Washington). Such institutions have answered the question of whether it is necessary to compartmentalize the scholarly record into division and units to permit the development of reference or information specialists; they have left behind the cumbersome structure of the artificial divisions of knowledge solidified in the spatial storage relationships of library materials, and also abandoned the perhaps equally rigid specialized reference librarians who interpret the relationships of the physical and bibliographic organizations of the library spatial arrangements.

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(15) Lapp, J. A. The growth of a big idea. Special Libraries. 9:157-159, 1918.

(16) Rothstein, ACRL Monograph No. 14, op. cit. pp. 53-54

(17) Rees, A. Broadening the spectrum. In, Linderman, W.B. The present status and future prospects of reference information service. American Library Association, 1967, pp. 57-65.

(18) Dickson, P. Think tanks. Balantine Books, 1972, pp. 1-3.

The requirements of information flow into and from the scholarly record have demanded increased specialization of reference service, but the bureaucratic vehicle and the facilities that are needed to support such specialization are tied to the logistics of storage and to the social purposes of maintaining libraries. Is it possible to promote specialization that is not tied to storage arrangements? A recent article has proposed a "library group practice", a systematic working together of specialist librarians and supportive staff in a format modelled after medical group practice.

> The purpose of forming a library group practice is to enhance the service capabilities of the library by making optimum use of all levels of staff and thereby improving the cost-benefit ratio and increasing the librarian's rate of productivity. (19)

Bibliographic control.

Cataloging rules. In the 19th century it was the Germans who brought to the attention of the scholarly community the need for bringing the scholarly record under bibliographic control. Their techniques of descriptions are still in use today, but it was in the United States where the technology of bibliographic control was brought to the point where all forms of the scholarly record could be described in a standardized format acceptable for use by most libraries. Within a matter of years there may soon be adopted the International Standard Bibliographic Description that will be accepted world-wide. (20) The effort of American catalogers is more than just a group of individuals agreeing to a common set of rules. The 19th century European bibliographers were content to describe items. The American bibliographer-cataloger added the concept that any list should bring like items together in one place; for example, where an individual (or agency) published something anonymously or under different names, that individual's entire production could be found arranged together, or in the instances where the content of the work was distinctive, as the Bible, all publications could be identified through a standard descriptive entry. The acceptance of this standardization has made it possible to produce a national union catalog which can list the ownership of specific titles in hundreds of libraries in the U.S. and Canada. A book catalog of pre-1956 titles is now being published in 110 volumes listing 12,500,000 separate documents. The task of including the holdings of the great European libraries in this catalog, because of their lack of bibliographic standardization, would take man decades.

(19)Auld, L. and Voit, I. Library group practice. College and Research Libraries, 34:54-58, 1973.

(20)Cf. Library Journal v. 98, Jan. 15, 1973 and Feb. 1, 1973.

The reason for the discussion of the results of one aspect of bibliographic control is to emphasize that the librarians of the late 19th century, having recognized that users needed assistance in finding materials within the library, began to create card catalogs for their own use as well as for users. The card catalog was made according to rules established by librarians. The librarian therefore had the responsibility to explain to users how the catalog was designed. Obviously, the card catalog was a great step toward identifying ownership of books in contrast to no catalog or outdated book catalogs. The catalogs unfortunately have not become simpler to use because libraries have had to incorporate in them descriptions of many forms of material, such as records, maps, music scores, films, recordings, etc., as well as materials published in many languages. The rules for standard description seem to grow even more perplexing. The filing rules are now beyond the logic of a computer to cope with. It is not suggested that the expertise to use large library catalogs is an esoteric art, but that the time it takes to learn its required intricacies is more than most library users wish to invest. Librarians may still carry the hope that the catalogs they produce of a particular library can be a self-service instrument whose details can be grasped immediately, but this has become a myth rather than an attainable goal.

Subject indexing. The standardized cataloging rules make it possible to locate through catalogs whether a library owns a particular book (if its existence is known in sufficient detail to relate to the rules) and what a library owns by a particular author. Because of the quantity of literature produced, there had to be some way for the scholar to find what was published on a "subject" Specialized bibliographies arranged by subject categorization were issued in the 17th century. By the 18th century special journals published abstracts of books and journal articles which were arranged in subject groupings. By the 19th century the Germans began adding alphabetic indexes to these secondary instruments. There were two developments in the history of bibliography which are instrumental in augmenting the responsibility of reference librarians: the first arose out of American librarianship and the second from the proliferation of index and abstract journals.

Just as librarians began to standardize bibliographic description, they also tried to formulate standard descriptors to categorize literature. What should be recognized here is that standard subject heading lists are a metalanguage; that is, a limited number of words are used to bring like material together. This method is quite distinct from using the author's language to characterize his own work. Whether the use of standard subject heading lists is a better method to index literature than natural language is unresolved even today. Nevertheless, library catalogs in most U.S. libraries do use standard subjects which require a special group, the reference librarians, to interpret the logic and the syntax of the standardization. Published index and abstract journals have also adopted the concept of standard subject heading lists which librarians often most interpret to users.

This brings us to the second point, the proliferation of index and abstract journals. The number of primary journals has continued to grow. Price has calculated that for every 250-300 journals that enter the scholarly record, an index or abstract journal must be created. (21) Libraries long ago abandoned indexing journals, instead they purchased these secondary instruments, most of which are produced outside of library organizations. (22) Index and abstract journals are put together for a particular user community. Each user community divides the world differently by using different words or applying different meanings to the same words. A journal might be included in four or five different index or abstract journals. Each of these secondary instruments has its own metalanguage. Not even the smallest departmental, divisional, or special library uses but one index or abstract journal. Librarians must in some way inform the user (i) that the adjunct or addendum to the library's catalog is available, (ii) how to use the various metalanguages of these instruments, and (iii) how to find the materials cited if owned or how to acquire them if not owned.

Classification. The use of classification scheme permitted libraries to open up storage areas for direct access by users, but it also required that librarians expand their teaching role. Users have to be taught the function and purpose of the classification scheme as well as how to find materials on the open shelves.

"Reference books".

There has never been a generally accepted meaning to the term "reference book". Bishop complained in 1915 that reference books

> have taken on a new and dubious meaning. Formerly the term was restricted to works of an encyclopedic character, to books of ready reference... Now (in libraries) to those have been added all other books placed in reading rooms with the view of keeping them there for the convenience of the reader. (23)

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(21) Price, D.J.S. Little science, big science. Yale University Press, 1963.

(22) Cf. Wayne State University. University Libraries. Access to machine readable bibliographic data, a proposal to MERIT. Working Paper No. 7.

(23) Bishop, op. cit.

Bishop's irritation arose over the physical organization of libraries. It was at this time that large libraries had formed divisions. The specialist librarians gathered together materials from the main body of the collections which could serve as a means to identify the subject specialty of the division. These collections began to be libraries within a library. This was a different concept from the time when the early reference librarians collected for easy physical access the materials which helped augment the library's catalog, or assisted the reference librarian in answering simple fact questions that would be laborious to locate in the primary literature. The latter group of materials, such as handbooks, and other books of facts about people, things or values, were the kinds of books whose content could not be easily categorized through the standard subject cataloging discussed above. One of the functions of the reference librarian was to "know" the content of these books so that he could answer questions of fact put to him by users. But how do you get the user to ask the librarian the question so that the librarian can reveal his knowledge of the content of these books? As with all literature these "uncatalogable" books are ever increasing in number. Boyd remarks reference librarians (and their teachers)

> continue to confuse knowledge of the use of the book with knowledge of the use of the library collection. These are not the same. The one does not lead to the other... The college professor knows how to use books, without the benefit of a reference course; he may not know how to use a library collection. (24)

What gets defined as a reference book and whether it becomes part of a reference collection is an attitude of the reference librarian more than the nature of the material. A reference collection in a library reflects more often the kind and quality of service a reference librarian would like to provide rather than what he can deliver. If a reference collection is put together as arbitrarily as suggested here, how does the user find these materials that are "out-of-normal location"? The librarians must in some way inform or teach the user the nature of this specialized collection.

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(24) Boyd, A.M. Personnel and training for reference work, in Butler. The reference functions... op. cit. pp. 249-266.

ATTITUDES OF REFERENCE SERVICE

Librarians, even the most conservative keepers of books see their primary duty as allowing responsible individuals to have access to collections. The specialization of reference librarianship developed because of the recognition that users did not have the means to learn how to exploit a library collection. But with any bureaucratic organization, a new unit must carve its identity out of an existing structure. How much effort should be devoted to reference service in a library organization? One extreme is that no service be provided and each user fend for himself; the other is providing a reference staff member for each of the library's primary clientele, as for example, the Congressional Research Service (the "reference department" of the Library of Congress available to congressmen only) which has an authorized staff of 535. (25) The former situation in an academic library is untenable, and only Congress or a federally funded think tank can afford the latter. It is no surprise, then, that Rothstein after an extensive review of the literature should conclude that there are three general positions taken on the nature and extent of the reference assistance to be offered: conservative, moderate, and liberal. The moderate position

> represented a compromise between guidance and full information service, between laudable desire to be of maximum assistance in important investigations and realistic reservations about the ability of the library to do so. (26)

The specialization of the reference librarianship has grown into a scholarly enterprise, but its base is entirely empirical. As hard as some individuals try to extend the meaning of the terms "philosophy" and "theory", reference service cannot be deduced from general principles. The work of reference librarians is determined by the goals and objectives of the institution that supports the service and how much of its resources it wishes to invest in specialized librarians. Individual reference librarians, if given the opportunity, can provide the most generous of services. The question is to what extent can reference services be institutionalized and made dependable. The answer almost

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(25) Gwinn, W.E. Information for Congress. Special Libraries. 64:61-64, Feb. 1973.

(26) Rothstein, ACRL Monographs #14, op. cit., p. 76.

borders on ethical considerations. How much responsibility does a reference librarian assume for the completeness and correctness of his work? McComb avoids answering the question:

> The honest reference librarian recognizes that just as books are of unequal value, so are readers' questions of unequal importance. One perennial problem is how much help to give a reader. Again I must say, "I don't know; it depends". The amount of time will depend on the question, on the reader, and on his need or purpose. (27)

This attitude places the reference librarian in an unusual power position. How much effort and how much of his expertise he deploys depends upon his assessment of the individual library user. This permits the reference librarian to define his own level of competence and provides him with an automatic means for evading responsibility and completeness of his work. This in no way suggests that the authenticity and relevance of information supplied, as for example in a state-of-the-art review or a critical review, is not capable of scholarly evaluations, but that the reference librarian can choose when and if he wishes to allow himself to be evaluated. Within any reference unit which has a variety of user groups, as is certainly the case in a university environment, the librarian can assume a conservative, moderate, or liberal position (irrespective of his level of scholarly competence) depending upon his estimation of user need and status.

A reference unit can provide a wide variety of services but still be considered conservative in attitude because the policy would be established that all but a few users get minimal service. In a previous working paper, a hierarchical description of the kinds of services that a reference unit can provide was outlined. (Expanded here in Table 1.) (28) Any one of the services listed in Table I could be used to illustrate how the same reference unit can maintain several attitudes of reference service at the same time, but the situation in which a user asked a librarian for information that could be supplied from a single secondary sourcebook will be used as an example. The librarian could

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(27) McCombs, C.F. The reference function in the large public library. In, Butler, P. The reference functions... op. cit. pp. 16-33.

(28) Wayne State University. University Libraries. Service policies for academic libraries. Working Paper No. 3, August, 1971.

respond by referring the user to a bibliographic instrument to identify the sourcebook, by supplying the sourcebook to the user to look up the information himself, or by using the source book and giving the user the answer. Several levels of responsibility for users and librarians can be described for such activity.

1. The user is expected to know the existence of catalogs and other bibliographic instruments through which he learns of the existence of sources; this position, in effect, results in almost no service, at least as it is generally thought of today.

2. The librarian points out the way to utilize the library's organization and acts as a guide through the library and to the literature.

3. A more generous position for the reference librarian to take is that he aids the user in his study or research--the actual extraction of information still remains the responsibility of the user; in other words, the librarian's expertise is in library methods and organization and not in the content of the literature.

4. Although it may not be considered by some to be a higher level of service, the librarian presents himself as having knowledge of the content of a specific set of "reference sources", the reference collection, from which he can respond authoritatively only if the information sought is within this set of books; any further research is the responsibility of the user.

5. A next higher level of service is that the librarian search for authoritative sources of information and provide them to users; no assessment of the merits of the information is made, nor does the librarian assume that what is provided is complete.

6. The most scholarly level is, of course, the position that the librarian is a peer to the user and the information provided is authoritative; a critical interpretation is made and the user can act on the information as resulting from expert opinion and advice.

Historically reference services were created as an effort to respond to users when they were in the library. The telephone resulted in a dimension for reference service because some kinds of information can be provided without the user having to come to the library. Not all the services listed in Table I can be provided over the telephone, but all one-time citation services and answer services, if not completed by telephone, can at least be initiated in this manner. Telephone services

Table I

Reference services available
from academic libraries.

A. Citation services.

1. On a one-time basis.

a. Providing correct citations when user has incomplete or inaccurate bibliographic descriptions (i.e., verification services)

b. Locating ownership of specific items

1) in the library, or

2) in other libraries or agencies

c. Providing citations to documents relevant to user specified subjects.

1) Sample bibliographies (e.g., several recent papers).

2) Exhaustive bibliographies

3) Critical bibliographies (i.e., documents selected for merit)

4) Evaluated bibliographies (annotated list of citations)

2. On a continuing basis

a. General alerting service (e.g., acquisitions lists)

b. Specific alerting services

1) Relevant to a specific subject or tailored to interest of user groups

2) Relevant to users' individual interests

B. Answer services (providing specific information to answer users questions as distinct from providing citations to possible sources of information of interest to users)

1. Simple facts (those which can be found in a single source, e.g., address, definition of words, a picture)

2. Simple summaries (answers to questions which involve the collection and synthesis of simple facts from multiple sources)

Table 1 (continued)

3. Complex facts (answers where data available from different sources are conflicting and it is necessary to compile, compare, and contrast)

4. State-of-the-art summaries or critical reviews (answers provided in a narrative or some graphic form which require the evaluation or at least an ordering of information from several sources)

C. Instruction on use of library or bibliographic instruments and consultation services.

1. Instruction

a. Provide ad hoc individual assistance when requested within the library

b. Provide regular sessions (seminars, workshops) as part of, or separate from, regular class work

c. Provide program texts, explanations, recordings, etc., on organization of library and bibliographic instruments

d. Provide formal courses (credit, non-credit, required, or elective) for curricular units and disciplines

2. Assisting users with personal collections in selecting materials and/or organizing and operating their own retrieval system

3. Preparing exhibits of library materials and/or exhibits relating to explanation of events and ideas of interest to library's clientele

D. Redactory services

1. Provide bibliographic styling (other than verification noted above)

2. Provide editing service of the content of paper

3. Provide final editing services as proof reading and the compiling of indexes

E. Translation Services.

1. Identify if translation is available (see A.1)

2. Provide summary translations (abstracts)

3. Provide complete translations

become a convenient method for defining a conservative reference service policy. (29) Presumably any "answer" that results from a telephone request could have been found in the library by the users if they understood the bibliographic and physical organization of the library and understood how to use bibliographic and reference instruments.

Irrespective of the policies of a particular reference unit and irrespective of the definitions of the kind of services to be offered, a reference librarian must act either as a teacher or as a purveyor of information if he is to function as a reference librarian. The reference librarian guides, explains, or in some way helps users to learn how to gain access to the content of the scholarly record. On the other hand, because a value judgment is made that it is more cost efficient or cost beneficial to have librarians provide information than for users to learn to search for himself, the librarian functions as a library comprador. This dichotomy is simple to state but difficult to explain operationally. A library "curriculum" might be set up for users, but the growth and complexity of bibliographic organization is such that users cannot be kept up to date. A constant revision of the curriculum would be required. Compounding the problem is that while a user may learn the bibliographic and library organization for his main area of interest, scholarship does not divide itself into such rigid categories that users never have to move out of their areas of specialization. When does a librarian stop being a teacher of techniques and organization and become a purveyor of information? How does a librarian decide when it is more suitable to teach the user to find information for himself rather than to supply it?

MEASUREMENT OF REFERENCE SERVICE

Is reference service merely an attitude? Gardner has posed the question somewhat differently"

> If the student of reference perceives reference as performed only by reference librarians, then in his research he is constrained into conceptually setting reference librarians apart from other human beings. In setting reference librarians apart from other persons, it has seemed manifest to the student of reference that which differentiates the reference librarian from other persons in his preparation and practice of reference librarianship. Under the conventional concept of reference, then, the empirical study of reference poses two pertinent questions... How different is the education of librarianship? How successful is the practice of reference librarianship? (30)

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(29) The problems involved with establishing priority of telephone service over that provided when user is in the library has been discussed in Working Paper No. 3. Ibid.

(30) Gardner, G. L. Empirical study of reference. College and Research Libraries. 30:130-155, 1969.

This kind of statement makes reference librarians a cabal. Not only must they teach themselves, but the only basis for judging success is from self-generated values. If their function is to interpret the institution which supplies them their identity, then the measure of success is the extent that the library as an institution receives recognition. Reference librarians know from their daily work that the users of libraries do not understand how to use a library organization. Is this inactivity of the user to exploit a library the fault of librarians? The student of reference becomes discouraged. Comments as Barton's are not uncommon:

> As far as measuring a service in which so many intangibles and so many variables are involved, the situation seems hopeless of solution, and perhaps we should not use the word at all but substitute "judging" or "interpreting"... (31)

In 1942 Stone summarized the methods that had been used in measuring service. All of the approaches she could find centered on what the reference librarian did, either by relating his time or counting the number of contacts the reference librarians have with users. (32) A review by Rothstein 20 years later of the writings of students of reference produced no new approaches. His categorization of measurement and evaluation methodologies is fairly exhaustive.

> 1. Enumeration of reference questions answered is often attempted.... This gross measure is concededly too crude to be meaningful and is almost certain to be incomplete, probably by a good 40 per cent.
>
> 2. Reference questions classified by type, subject, purpose, or effect have been used in many studies. Simple enumeration gives equal weight to the service rendered by, say, a nod of the head showing the location of the card catalog and to the compilation of a lengthy bibliography... To discriminate between such levels of service, reference investigators have devised a number of classifications, none of which, it may be noted, has been considered wholly satisfactory. A number of investigators have used "time taken" as a basis of classification, ... The method is admittedly deficient, since there is obviously no necessary relationship between effectiveness of performance and the time put into it.... A variant on this method is the grouping of questions by type.... None of these methods has been as yet sufficiently standardized to allow for reliable comparison of findings, but together they have yielded a body of useful date.

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(31) Barton, M. M. Administrative problems in reference work. op. cit.

(32) Stone, E.O. Methods of evaluating reference service. Library Journal. 67:296-298, 1942.

3. The reference clientele has been subjected to analysis in a number of ways: most commonly by occupational classification--students, businessmen, housewives, etc.; by sex; by educational attainment; by age; in the case of university libraries, by academic standing.

4. The reference collection has been the subject of surprisingly little quantitative study considering the traditional emphasis within the profession on the importance of reference books. The principal method employed has been the checking of library holdings against standard bibliographies such as those of Mudge-Winchell and Shores and then almost always only in respect of a single library.

5. Reference personnel and the organization of reference departments have also been rather infrequently studied, although here too the professional associations have belatedly set about gathering some basic facts. The number of libraries with reference departments, the number of full-time reference librarians, the duties for which reference departments are responsible, the apportionment of time within libraries for reference work as compared to other library activities, and the policies of reference departments with respect to types and levels of reference assistance have all received sporadic attention.

6. Cost analyses have perforce been few, for refined measures of units of work accomplished must be available before the costs of such units can be computed....

7. The evaluation of reference service, whether within a single library or in respect to groups of libraries, is a rarity indeed in the reference literature. Evaluation presupposes measurement against a specific standard or yardstick or goal, and no area of library service has been more deficient in such standards than reference service....

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(33) Rothstein, S. Library Trends 12:456-472, Jan. 1964

During the 1950's and 1960's a large number of "user studies" were undertaken. The assumption in most of these studies is that if information concerning habits of users were known, then the entire scholarly communication process could be rationalized to match habit patterns by changing our institutional structures. Although such studies may have provided us with a little better understanding of the psychology and sociology of scholarship, the enumeration of present scholarly habits is for the most part a reflection of how the scholar responds to the administrative structures that now exist. Such studies cannot produce "laws" of scholarly behavior from which applications of library services (or other communication services) can be deduced. In other words, if users are asked how they would improve their institutional services, and if they rely on their habitual practices on which to make suggestions, their response is to have more services they already have, or know about, executed more efficiently.

The studies so far reported in the literature seem to be unconvincing in quality or methodology and are easily criticized. One recent study made an attempt to evaluate the quality of service provided from different libraries by the researcher simulating a user asking the same question of the different reference librarians. The latter did not know their service was being examined. The results of applying this methodology revealed that the user could expect a "correct" answer only about 50% of the time. (34) Of more interest than the results of the study was the response of at least one librarian who felt that testing the competence of a professional librarian without his knowledge was an invasion of privacy--such practices were unethical. (35) What this critic failed to realize is that every user makes a judgment about the adequacy of reference librarians every time he asks for assistance. To simulate a user to regularize judgments on a consistent basis can hardly be called an invasion of privacy. Every user contact with a reference librarian would then be an invasion of privacy.

The critics of students of reference can be caustic. The reference librarians can discuss endlessly the difficulties of measurement but the pressures still remain from users (and librarians) that improvements are necessary and from administrators that the cost of reference must be justified through some performance measure.

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(34) Childers, T. Managing the quality of reference information services. Library Quarterly 42:212-217, 1972.

(35) Sergean, R. Library Quarterly. 43:64-65, 1973

TIME

The objectives of libraries have changed little over the millennia: they must preserve the scholarly record for access by qualified users. Individual libraries change the means to fulfill the objectives because they are subject to the vicissitudes of support and redefinition of qualified users (usually by an authority outside their organization). The discussion so far has not led to any definition of reference services because the range of what can be done to assist users in finding documents and information is wide. What a reference librarian does in a particular library environment (assuming competence) is dependent on his available time more than any other factor. (36) To define reference service in the abstract is therefore a pointless enterprise for a particular library. A reckoning of time to provide the service must be included in the definition. To save "time" reference librarians have prepared aids and instruments to assist users in locating information, but is this reference service? As pointed out above many techniques have been developed to assist users most of which also require specialized librarians. Are all librarians then reference librarians? Such all-inclusiveness precludes any hope for planning and budgeting reference services. The nature of planning requires a statement of limitation, that is, one activity is done rather than another. To emphasize, reference service, in a particular library, is what the service staff have time to do, not what they can do if more time were available. Reference service programs, if stated in available time of librarians, can be altered then as conditions change whether the service is provided by one librarian or several in a particular library unit. If the quality of reference service has to be reconciled among several library units, a time statement can be made for service activities.

Direct service to users has two time dimensions, that of the librarian and the user. In the situation where there is one reference librarian for every user all the services listed in Table I probably could be provided without strain. When the reference librarian has to take on more than one user, he has to begin to set up priorities in what he does and for whom. It is possible for a library organization to classify its users so that some can receive the full

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(36) Drucker has said "Time is the scarcest resource and unless it is managed nothing else can be managed". It is suggested that some industrial agencies soon may be making capital decisions on the basis of return on the investment of executive time rather than return on capital invested. Cf. Mackenzie, R.A. The time trap. Amacon, 1972, pp. 1-14.

complement of services and others fend for themselves, or at best, their requests get deferred until the reference librarian has the time. Service to all but the select few becomes undependable. Consequences of undependable service might result in any or all of the following.

1. Requests become fewer thus freeing more of the reference librarians' time for service to the elite user.

2. The reference librarian explains how the user can secure the information himself, that is, the librarian becomes a teacher of his own art.

3. The user attempts to find out for himself without guidance or assistance.

A perspective can be gained on what is meant by pressures on reference librarians' time through the manipulation of figures. WSU assigns about 375 hours of librarian's time to work at reference desks throughout the week, or 16,600 hours per academic year. Although WSU has over 32,000 students, this equates (fall 1972) to about 25,600 full-time students. The University has about 1400 faculty. There are several thousand other staff, academic, professional, research assistants, as well as hundreds of individuals not connected with the University, who also use the library, but may be ignored in this perspective-seeking conjuration. If each of these 27,000 statistical individuals were to ask for an interview with a reference librarian, an appointment of about 35 minutes could be given each person during the year. Unfortunately reference service cannot be planned on an appointment basis. The need for assistance occurs when a person is engaged in some investigation or study. Thus, while it is possible to distribute reference librarians' time according to a schedule, it is not possible to schedule users' needs. It is possible to change users' expectations of what kind of service is available in a negative way as mentioned above, but users' cannot predict when they might need assistance--the need for a reference librarian arises for the most part in a problem-solving situation. Once a problem is identified, the user may be taught that he can delay making a request for assistance, but these are special situations, for example, a need for translation. This brings into the sequence of the reference service operation the constraints of the users' time.

Reference librarians may have their time at service desks formally scheduled. Although it may not often be recognized, users also live by a schedule in an academic environment. I know of no study on the time uses of students and faculty, but a pattern of library use can be described that could be accepted by most if it is kept in mind that it is a "general" or "average" pattern and that an effort is made to

suppress the desire to call forth the important exception which dominates our thinking because of the presumed priority requirements. The academician must organize his life around regularly scheduled events that occur a certain number of days over a period of a week. At WSU a readjusted time schedule is required almost every quarter. Basic to the thesis of this paper is the assumption that the academician's "attention span" on the average does not exceed more than two to three hours at any one scheduled task before he moves to another scheduled task. Without trying to prove there is a rhythm caused by any esoteric psychological, biological, or environmental need a sequence of activity can be described behavioristically. In any two to three hour study period, a student or researcher will usually move from one problem to the next in his sequence of study in about 12 to 15 minutes. If he does not solve the problem in that period of time, he reassesses his methodology and tries another approach. Whether he works on one problem from several different approaches, or whether he can proceed in steps to the next problem, he ordinarily cannot spend more than 2 - 3 hours before he must interrupt his work for some other activity, be it for food, a class, an appointment, or from frustration. Because the academician must schedule his work to cover different sets of study sequences, and because of bi-weekly class assignments, he will not return to his Monday problem until Wednesday or Thursday, or more likely the following Monday at which time he can devote another 2 - 3 hours to this same area of study. If we break this down into minutes and hours, the sequence may appear as follows:

12	minutes	=	0.5	hours	=	0.12	days
120	"	=	2.0	"	=	0.8	"
1440	"	=	24.0	"	=	1.0	"
4320	"	=	72.0	"	=	3.0	"
10,080	"	=	168.0	"	=	7.0	"

There is some data to support this projection of self-scheduling of library use by a university community, albeit in a limited library environment with a small number of people. Each user who entered the WSU Medical Library was clocked on the time he spent in the Library and what parts of the Library he used. It was found that 44% of the individuals entering spent less than thirty minutes in the Library and that 77% of this group went to only one or two locations. This observation is not surprising because how many places in a library can a person go in fifteen to twenty minutes? An explanation of this behavior, although only a surmise, is that these individuals come to the library for a specific purpose, to return a document, to locate or to verify the existence of a document, or to verify or establish a question of fact. Of the 56% who were in the Library longer than one half hour, only 2% remained longer than two and one half hours. The average stay for those who were in the Library for 30 to 60 minutes was 49 minutes. (37)

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(37) Pings, V. and Anderson, F., Study of the Use of the Wayne State University Medical Library, Wayne State University Medical Library, Report No. 10, May, 1965.

The academic reference librarian to practice his art must make decisions on how to deploy his time in most situations because he must work at times when needs for his service outstrip his capacity to handle the requests, and at the other extreme he must accept scheduled assignments when the demand is below his capacity to handle; in other words, he cannot assign his work in a sequential manner to deal with one request at a time because he must adjust his time to a user schedule over which he has no control. His performance (from a user viewpoint) becomes undependable because of the inability of control over the use of his time. The pressures for time on both the reference librarian and the user are therefore intense. It would appear reasonable to plan and budget reference services in which the librarian coordinates his services in terms of user time frames rather than in terms of the nature or complexity of the question or the status of the user.

PROPOSAL FOR ACCOUNTABILITY OF REFERENCE SERVICE

Social transactions have values and constraints which circumscribe them. Some of the values, constraints and assumptions of this proposed reference service can be stated with relative unambiguity. Some can only be uncovered through testing. The general idea is that academicians in their study activities in problem solving or learning situations work in ten to fifteen minute time segments on one problem which must be resolved to permit moving on to another problem, or a reassessment made to try another approach. Given a series of problems, a library user, in general, spends from two to three hours working on one sequence of problems. After such a length of time, the user either completes his activity, or postpones working on the series of problems until the next day (or two to three days or one week).

The reference librarian's contact with a user is again, in general, when the user has made a reassessment in his problem solving and is searching for another approach. When the reference librarian accepts the user's problem, the librarian proceeds in the same time sequence as the user. The reference librarian, if he has not "solved" the user's problem within ten to fifteen minutes, will have exhausted his immediate sources and must reorganize his procedures to continue to work with the problem. This requires that a new reference librarian-user relation be established:

1) The user must decide whether his problem is worth his and/or the librarian's time to pursue further.

2) If so, then given the constraints of the librarian's time, several choices are available: (i) the librarian teaches or explains to the user how to proceed to solve the problem, or (ii) arrangements are made with the user to return after an agreed-upon period (two hours) to check with the librarian to determine if a "solution" has been found.

After two hours' work the librarian may still not have "solved" the problem. The reference librarian-user relationship must again be renegotiated as in 2).

Whether the reference librarian "solves" the user problem within these time frames depends upon his knowledge and skill. Every reference librarian, given enough time theoretically can arrive at the same conclusion as every other reference librarian. This brings us back to aspects of reference service discussed earlier. The reference librarian in his problem-solving activity does not necessarily find answers to user's problems, because only the user can determine whether the information obtained suits his needs. What the reference librarian does is utilize his knowledge of the organization of the literature and the organization of his own library (and other libraries) to reveal possible answers. As pointed out before, there are situations in which, for the sake of economy of time, it is faster for librarians to provide an answer than it is to teach the user how to find it for himself, but such answers must be given within the user's problem-solving time frame because the user must make decisions about his work sequence.

When a reference librarian is approached by a user, the librarian cannot always predict how long it will take him to find the "answer". The reference librarian has to assess his own abilities every time he negotiates a question. His possible courses of action in relation to the user are relatively few. Starting from the situation in which the reference librarian determines that his expertise does not permit him to respond within the first time frame, a sequence of decisions on his part are possible. This matches the user's decision-making processes just discussed above.

1) The reference librarian calls upon, or refers the user, to another librarian who may have the expertise. (Obviously the administration of the reference services has to have such a routine built into its operation with sufficient staff to make this possible.)

2) The reference librarian explains to the user how to proceed in searching.

3) The reference librarian proceeds with his search and if he does not succeed within the user time schedule negotiates the next step with the user.

   a) Assess whether user wishes to continue the search himself with or without guidance from the librarian.

   b) Determine if the user can postpone receiving an "answer" to his question and by when he needs it.

4) The reference librarian may be able to assess that the question as asked (i) is unanswerable, or (ii) requires a search that goes beyond the time available to the user and therefore can renegotiate the question so that some facet can be answered within the user's time schedule.

The relationship between the reference librarian and his user clientele makes it possible to define responsibilities for each. If responsibilities can be defined it may be possible to design a reference service program which permits accountability.

PROGRAM PLANNING

The quality and extent of any service is difficult to measure. Earlier it was noted that attempts at measuring reference service concentrated on counting a tangible product, or individuals. Service operations, distinct from production operations, require the application of knowledge to the satisfaction of a consumer of the service. The measure of service therefore rests in part on whether the consumer's expectations have been met. The ethics of advertising require that statements made do not mislead a consumer into expecting more than can be delivered. Using advertising codes as an analogy, any announceemnts of reference service programs should be such that the user does not expect more than can be supplied, and if he is mislead, that there is a means to teach or to explain what realistic expectations are.

According to the proposed reference service program, the first assessment that a reference librarian must make when he accepts a user's question is whether he can "answer" it within his own and within the user's time schedule. If he cannot then he must be prepared to explain to the user how to proceed on his own. The competence of the reference librarian is thus not judged on how much factual knowledge he has of the content of the scholarly record, but on his knowledge of the organization of the scholarly record itself and how to access it within a particular library environment. A reference service which assumes the competence of the reference librarian to be able to describe a sequence of steps to locate information within progressive time segments can be measured as a process. The reference librarian-user relationship is one in which limits of user expectations can be defined and explained. The concept of measuring (i.e.,

counting) a process rather than a product can be understood if what is not measured is listed:

1. It is not the number of questions that a reference librarian answers (or does not answer) but the number of contacts he has with users.

2. It is not difficulty of the questions that has to be evaluated, rather the sequence of events in the librarian-user contact that is enumerated.

3. It is not the user who is being judged as to his status nor the importance of his question

Another way of explaining reference service from this perspective is that the reference librarian is always a teacher; only when he can provide an answer to a question faster than he can explain a methodology of library use does he lose his function as a teacher and becomes a "subject" authority, or when the user can postpone his need to know to allow the librarian to devote his time rather than the user's time to carry out the methodology of searching. The reference librarian in teaching must explain a sequence of steps, a process or course of action.

This perspective of reference service does not suggest that reference librarians do anything different from what they have always done, but reformulating the activity of reference service from this perspective allows for accountability of time and performance of reference librarians. Reference service then becomes more suitable for program planning and budgeting.

Budgeting for reference service is almost entirely accounting for time. The reference librarian would account for his time in only one of four ways. He can record his activity using the following chart.

Reference Service Activity Record

User Contact	Time Sequence 1	Time Sequence 2	Time Sequence 3
Search Only			
Teaching Only			
Search followed by Teaching			
Search followed by Postponement			

Three levels" of reference service are defined in which librarians must arrive at a "conclusion" in their contact with users. Since each level has a time limit, the amount of time needed for the service can be planned for if the number of users requesting the search or teaching service is known. How is it possible to determine the number of users? Two approaches will be discussed here in a simplified way. Both approaches would probably have to be used to project work loads for program budgeting or for formula budgeting.

The first approach requires that an existing service record its activities over a period of time (an academic cycle) to determine when the service is in demand. To project demand on past experience is how we build our statistical view of our environment. A statistical projection obviously cannot predict the future with absolute precision, however, with carefully collected data, a projection of activity can be made which is within a tolerable limit of accuracy. The second approach is to state what services can be provided, as if for a fixed price contract, then plan for a maximum use. This in effect is the reverse of the first approach. A total user population is determined and the amount of time required to provide reference service to this population is calculated. In the first approach a projection of past use determines how to plan for reference service time; in the second approach it may be necessary (to justify amount of assigned time for service) to promote or to advertise. If the latter is done, then the reference service must be willing and able to define the reference librarian-user relationship so that a dependable contract will result.

A second aspect of the perspective outlined here is the responsibilities of the reference librarian as a teacher. Every reference librarian-user contact which involves teaching may result in a personal tutorial. The overall objective of academic reference service is to insure that users have the opportunity to learn and to understand the organization of the library. He can only learn about the library from librarians. But to learn how to use a library, the user must have an understanding of the structure of the scholarly record. The librarian can teach users what this structure is, but it has not been the sole responsibilities of librarians to teach the structure of the scholarly record in an academic environment. How the curriculum should be designed to allow students to learn how the scholarly record is produced and controlled is the subject of another Working Paper.